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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,076	07/03/2003	Leigh H. English	MECO:218-1 11792.0218.DVU	8919
45607	7590	10/18/2006	EXAMINER	
HOWREY LLP C/O IP DOCKETING DEPARTMENT 2941 FAIRVIEW PARK DRIVE SUITE 200 FALLS CHURCH, VA 22042			KUBELIK, ANNE R	
			ART UNIT	PAPER NUMBER
			1638	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/614,076

Applicant(s)

ENGLISH ET AL.

Examiner

Anne R. Kubelik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-46 and 48-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40-46, 48 and 49 is/are rejected.
- 7) ☒ Claim(s) 50-54 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 40-46 and 48-54 are pending.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. The rejection of claims 47-49 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention is withdrawn in light of Applicant's cancellation of claim 47.

Claim Rejections - 35 USC § 112

4. Claims 40-46 and 48-49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The rejection is modified from the rejection set forth in the Office action mailed 4 April 2006, as applied to claims 38-49. Applicant's arguments filed 31 July 2006 have been fully considered but they are not persuasive.

Neither the instant specification nor the originally filed claims appear to provide support for the following:

A plant transformed with a nucleic acid encoding a Cry3Bb* modified at only Ser311→Leu and Asn313→Thr, Asn313→Thr and Glu317→Lys, or Ser311→Leu and Glu317→Lys as encompassed by claim 40, lines 4-7;

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A plant transformed with a nucleic acid encoding a Cry3Bb* modified at with o any combination of Asp165→Gly with one or more of Ser311→Leu, Asn313→Thr, Glu317→Lys and/or His231→Arg as encompassed by claim 46, except for the following:

Asp165→Gly, Ser311→Leu and His231→Arg;

Asp165→Gly, Ser311→Leu, Asn313→Thr, Glu317→Lys and His231→Arg

A plant transformed with a nucleic acid encoding a Cry3Bb* modified at with only any of the following combinations as encompassed by claim 48:

His231→Arg, and Asn313→Thr

His231→Arg, and Glu317→Lys

His231→Arg, Ser311→Leu and Asn313→Thr

His231→Arg, Ser311→Leu and Glu317→Lys

His231→Arg, Asn313→Thr and Glu317→Lys

A plant transformed with a nucleic acid encoding a Cry3Bb* modified at with only any of the following combinations as encompassed by claim 49:

Gln348→Arg and Ser311→Leu

Gln348→Arg, and Asn313→Thr

Gln348→Arg, and Glu317→Lys

Gln348→Arg, Ser311→Leu and Asn313→Thr

Gln348→Arg, Ser311→Leu and Glu317→Lys

Gln348→Arg, Asn313→Thr and Glu317→Lys

Gln348→Arg, Ser311→Leu, Asn313→Thr and Glu317→Lys

Thus, such claims constitute NEW MATTER. In response to this rejection, Applicant is required to point to support for the phrase or to cancel the new matter.

Applicant points to places in the specification that recite “one or more mutations” (response pg 6-7).

This is not found persuasive, as there is no support for the particular combinations of mutations recited in the claims, either before the current amendment or after, nor is there any support for mixing and matching the mutations in Table 2. There is only support for the idea of one or more substitutions, not for particular combinations of substitutions, other than those listed in Table 2.

Applicant urges that Table 2 provides support for 8 exemplary variants (response pg 8).

This is not found persuasive. The listed variants do not provide support for the combinations listed above.

Applicant urges that Asp165→Gly has support (response pg 8).

This is not found persuasive. There is support for Asp165→Gly alone (in Cr3Bb.11032, for example), for Asp165→Gly, Ser311→Leu and His231→Arg; Asp165→Gly, Ser311→Leu, Asn313→Thr, Glu317→Lys and His231→Arg, and for certain other combinations but not for any other possible combination.

Applicant urges that claims 44-46 “comprise” the claimed mutations and this open-ended language and 4 variants provide support for the claims (response pg 8).

This is not found persuasive. 11082 does not provide support for Asp165→Gly and His231→Arg alone, as encompassed by the claim, because 11082 also has other substitutions. 11081 does not provide support for Asp165→Gly and Glu317→Lys alone, as encompassed by

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the claim, because 11081 also has another substitution. Each of 11082, 11098, 11081 and 11084 only provide support for the particular combination of substitutions made in those variants.

Applicant urges that claim 40 refers to exemplified substitutions (response pg 8-9).

This is not found persuasive because the exemplified substitutions provide no support for a plant transformed with a nucleic acid encoding a Cry3Bb* modified at only Ser311→Leu and Asn313→Thr, Asn313→Thr and Glu317→Lys, or Ser311→Leu and Glu317→Lys.

5. Claims 50-54 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne R. Kubelik, whose telephone number is (571) 272-0801. The examiner can normally be reached Monday through Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg, can be reached at (571) 272-0975.

The central fax number for official correspondence is (571) 273-8300.

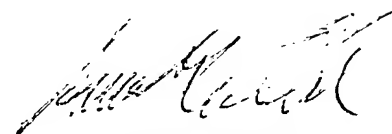
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

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Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Anne Kubelik, Ph.D.
October 5, 2006



ANNE KUBELIK, Ph.D.
PRIMARY EXAMINER